Cervical Lymphadenopathy

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Case Discussion

• 15 y/o female
• 1-2cm ant. and pos. cervical nodes x 1 year
• No systemic symptoms
• Friend recently died of Hodgkin’s
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- 13 month male
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- Hx C. diff.
Lyanna
Definitions

• Lymphadenopathy = any disease process involving lymph nodes.

• Lymphadenitis = inflammation of lymph nodes.
Lymphadenopathy

- Benign
- Infectious
- Malignant
Benign

- Normal variant
- Dermoids
- Parotid: hemangioendothelioma, lymphangioma
- Thyroglossal duct cyst
- Branchial Pouch Defect
- Venous lakes
- Drugs
Thyroglossal Duct Cyst
Thyroglossal Duct Cyst
Thyroglossal duct cyst
Thyroglossal duct cyst
Branchial Cleft Cyst

Branchial Arches 5 week Embryo
External clefts Internal pouches
Branchial Cleft
Biogenetic Law

“Ontogeny repeats phylogeny.”

Ernest Haeckel
Ontogeny repeats phylogeny
Branchial Cleft Cyst
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Lymphadenopathy
Etiology

- Infectious
- Neoplastic
- Histiocytoses
- Collagen Vascular
- Sarcoid
- Kawasaki
- Kikuchi
- Postvaccination
- Immune Deficiency (CGD, Job, LAD)
Kikuchi-Fujimoto Disease (Cervical Subacute Necrotising Lymphadenitis): An important benign disease often masquerading as lymphoma

http://www.ums.ac.uk/umj078/078(2)134.pdf
Cervical Adenopathy

Gram Pos Cocci
- Staph aureus
- Strep pyogenes (Grp A)
- Strep agalactiae (Grp B)
- Peptostreptococcus
- Peptococcus

Gram Pos Rods
- Bacillus anthracis
- Corynebacterium diptheriae
Cervical Lymphadenopathy

Gram Neg Rods
- Bartonella henselae
- Calymmatobacterium granulomatis
- Haemophilus influenzae
- Serratia marcesens

Gram Neg Rods, Enteric
- Acinetobacter
- E. coli
- Proteus
- Pseudomonas aeruginosa
- Salmonella typhi
- Shigella
Cervical Lymphadenopathy

**Gram Neg Rods, zoonoses**
- Brucella sp
- Francisella tularensis
- Yersinia pestis
- Yersinia enterocolitica
- Yersinia pseudotuberculosis

**Gram Neg Rods, anaerobic**
- Bacteroides sp
Mycobacteria/Actinomycetes

- Actinomyces israelii
- Mycobacterium tuberculosis
- Mycobacterium avium-intracellulare
- Mycobacterium scrofulaceum
- Nocardia ateroides
Rapidly Growing Mycobacteria

- M. fortuitum, avium
- M. chelonae
- M. abscessus
- Nail salons, prosthetics, trauma, surgery
- Treatment: combination Septra, Dox, Clarithromycin, Levofloxacin
Nails R Us
Cervical Adenopathy

**Spirochetes**
- Leptospira interrogans
- Treponema pallidum

**Rickettsiae**
- Rickettsiae tsutsugamushi
## Viruses

### DNA
- CMV
- EBV
- HSV (1 & 2)
- HHV6
- VZV
- Adeno

### RNA
- HIV
- Influenza
- Measles/Mumps/Rubella
- Parainfluenza
- Coxsackie
- Rhino
Fungi

- Aspergillus fumigatus
- Candida sp
- Crypococcus neoformans
- Dermatophytes
- Histoplasma capsulatum
- Paracoccidioides
- Sporothrix schenckii
Protozoa

- Leishmania sp
- Toxoplasma gondii
- Trypanosoma brucei gambiense
- Trypanosoma brucei rhodesiense
Infectious

• Pasteurella
• Pediculosis capitus
• Tinea capitus
• Stomatitis- sub-mental nodes
Tinea capitus
Cervical Adenitis
Empiric Therapy

- PCN
- Piperacillin
- Clindamycin
Cat Scratch Disease

- Bartonella henselae
- 90% LAD head, neck, UE
- 15% suppurative
- Fever in 30-50%
- Close contact with kitten
- Trauma unusual
- Cats>Dogs
The Culprit
Cat Scratch Democratic
Cat Scratch
Republican
Cat Scratch

• Pustule forms 1-2 weeks after contact
• Adenopathy 1-8 weeks after pustule
• 90% present with regional adenopathy
• Spontaneous resolution in 2-4 months
• Antibiotics not us. Indicated
  • Azith, Doxy, Rifampin
Cat Scratch

- Local lymph nodes affected
- Original wound (papule)
- Enlarged spleen
Cat Scratch - Atypical

- Parinaud’s syn.
- Neuroretinitis
- Encephalitis
- CN palsy
- Bell’s palsy
- Pneumonitis
- Arthritis
Cat scratch - diagnosis

- Serology- acute and convalescent titers
- PCR of exudate or tiss.
- L.N. pathology not specific
- Culture- low sens.
Cat Scratch
Epstein-Barr

Mononucleosis causes:

- Fever
- Fatigue
- Sore throat
- Swollen lymph glands
EBV
EBV
Pathologic nodes

- 2cm x 6 weeks
- Supraclavicular: right=mediastinal, left=abdominal
- axillary
Needle Biopsy

Biopsy needle inserted into lymph node and sample removed
Lymph Node Biopsy
Lymph Node
Lymph Node Biopsy
Hodgkin’s Lymphoma

• 80% present in head & neck
• Almost always nodal presentation
• Hard
• “B” symptoms; fever, night sweats, wt. loss
Hodgkin’s Lymphoma
Reticuloendothelial System
Biopsy

- Supraclavicular
- Fever x week
- Unexplained wt. loss
- fixation
Early Detection of Cancer

- Prognostic?
- Months vs 6 weeks
Evaluation

- CBC: leukocytosis, N/N anemia
- Peripheral smear
- CXR
- (ESR, CRP, LDH, Cu, Ferritin, CT, US)
Peripheral Smear

Reactive

Malignant
Chest X-Ray
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Conclusion

• Vast majority of cerv adenopathy is viral
• Bact is usually unilateral, painful, assoc with fever
• Don’t forget atyp micobact, cat scratch...
• Biopsy supraclav, med mass
• Monitoring for 6 weeks does not impact prognosis
Lyanna
Thank You